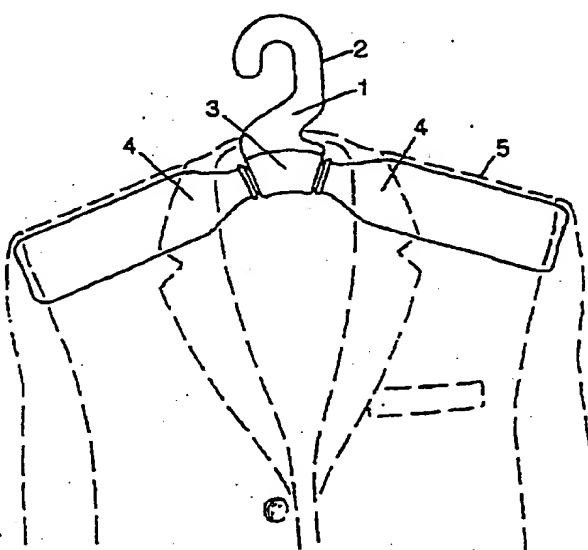


PCTWORLD INTELLECTUAL PROPERTY ORGANIZATION
International OfficeINTERNATIONAL APPLICATION PUBLISHED IN ACCORDANCE WITH THE PATENT
COOPERATION TREATY (PCT)

(51) International Patent Classification: A47G 25/40	A1	(11) International Publication Number: WO 00/53066 (43) International Publication Date: September 14, 2000 (14.09.00)
(21) International Case No.: PCT/CH00/00112 (22) International Application Date: February 29, 2000 (29.02.00) (30) Priority data: 459/99 March 11, 1999 (11.03.99) CH (71) (72) Applicant and Inventor: SCHWEIZER, Paul [CH/CH] Hönggerstrasse 16, CH-8103 Unterengstringen (CH) (74) Agent: GRONER, Manfred; Isler & Pedrazzini AG, Postfach 6940, CH-8023, Zürich (CH).	(81) Destination States: AE, AL, AM, AT AT (Utility Model), AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, CZ (Utility Model), DE, DE (Utility Model), DK, DK (Utility Model), DM, EE, EE (Utility Model), ES, FI, FI (Utility Model), GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK (Utility Model), SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO Patent (GH, GM, KE, LS, MW, SD, SI, SZ, TZ, UG, ZW, Eurasian Patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European Patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OPAI Patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SEN, TD, TG). Publication <i>With International Search Report</i>	
(54) Title: CLOTHES HANGER (57) Abstract The clothes hanger is provided with a hook (2) and two arms extending away from said hook. The arms are each formed by a bottle-type container (4). The hook (2) preferably has a screw thread (8) for each bottle-type container. The bottle-type containers (4) are each detachably screwed into one of these screw threads (12) by their mouth (7). 		

Clothes Hanger

This invention relates to a clothes hanger with a hook and two arms projecting from said hook.

The object of the invention is to create a clothes hanger that preserves the shape of the articles of clothing hung on it and can nevertheless be manufactured very economically.

The invention teaches that this object can be accomplished by a clothes hanger of the type described above in which each of the arms is formed by a bottle-shaped container. Beverage bottles, among other things, have an essentially cylindrical shape with rounded edges and are extremely well-suited as supports for clothes. The drinking bottles provide a seamless and very protective support for articles of clothing. Used plastic beverage bottles are particularly well suited for use as the bottle-shaped containers. These bottles are very lightweight and yet retain their shape very well. The clothes hanger claimed by the invention is therefore particularly well suited for the recycling of used beverage bottles. The used beverage bottles simply need to be cleaned, which means that the recycling process consumes very little energy.

In one development of the invention, each of the bottle-shaped containers is fastened by means of its mouth to the hook. A fastening of this type is particularly simple and stable if the hook has a thread for each bottle-shaped container and each of the bottle-shaped containers is screwed into one of these threads by means of its mouth. The

bottle-shaped containers can then be fastened to the hook and removed from it very easily. The hook need only be provided with two threads. Because threads of this type are standard on beverage bottles, a great many different types of beverage bottles can be used.

The hook can be manufactured very economically in the form of an injection molded plastic part. Other materials can also be used, however, such as iron, wood and similar materials. The hook can also be provided with a wire loop.

Clothes hangers as taught by the invention are also well suited for use as advertising media.

The invention also relates to a hook for a clothes hanger. This hook is characterized by two fastening means that are provided for the fastening of two bottle-shaped containers. Because beverage bottles can be found in almost every household, the manufacture of the clothes hanger can be limited to the manufacture of the hook. The arms are then manufactured by the user, by fastening his or her own beverage bottles. The user can replace these arms with other bottle-shaped containers as necessary. Hangers of different sizes can be created by using different sizes of bottles. For transport, the size of the hanger can be reduced by removing the bottles.

One exemplary embodiment of the clothes hanger taught by the invention is described in greater detail below and is illustrated in the accompanying drawings, in which:

Figure 1 is a view of a clothes hanger as claimed by the invention with an article of clothing indicated in broken lines,

- Figure 2 is a schematic illustration of the fastening of a beverage bottle to a hook
Figure 3 is a view of a hook in partial cross section,
and
Figure 4 is a view of the hook in the direction indicated by Arrow IV in Figure 3.

Figure 1 shows a jacket 5 which is hung on a clothes hanger 1. This clothes hanger 1 consists essentially of a hook 2 and two bottle-shaped containers 4 which are fastened to said hook.

To fasten the bottle-shaped containers to the hook 2, the hook 2, as shown in Figure 3, has two threads 12 which are formed by threaded caps 11, each of which is inserted into a recess 10 of a fastening part 3 of the hook. The covers 11 are fastened in the recesses 10 in a suitable manner such as by locking, latching and/or by means of a suitable adhesive or by welding. The thread 12 can also be formed directly on the fastening part 3, however. The hook 2 can be a single-story injection molded part, for example.

Each of the bottle-shaped containers 4 is screwed by means of a thread 8 on its mouth 7 in the direction indicated by the arrow 9 onto one of the two threads 12 as illustrated in Figure 2. The threads 12 are opposite each other and are oriented so that the two bottle-shaped containers 4 fastened to the hook 2 are at an appropriate angle to each other, which angle is preferably greater than 90 degrees. The fastening of the bottle-shaped containers 4 to the hook 2 is preferably although not necessarily detachable. The threaded connection shown here can also be replaced by other suitable connections, such as snap connections or locking connections.

The hook 2 is preferably made of plastic using the injection molding process. The curve 6 of the hook 2, however, can also be a curve made of wire or a similar material. It is also conceivable that the hook can be made of wood or another suitable material.

Claims

1. Clothes hanger with a hook (2) and two arms projecting from it, characterized by the fact that the arms are each formed by a bottle-shaped container (4).
2. Hanger as claimed in Claim 1, characterized by the fact that each of the bottle-shaped containers (4) is fastened by means of its mouth (7) to the hook (2).
3. Hanger as claimed in Claim 2, characterized by the fact that the bottle-shaped containers (4) are each detachably fastened to the hook (2).
4. Hanger as claimed in Claims 2 or 3, characterized by the fact that the hook (2) has a thread (8) for each bottle-shaped container (4), and each of the bottle-shaped containers (4) is screwed into one of these threads (12) by means of its mouth (7).
5. Hanger as claimed in one of the Claims 1 to 4, characterized by the fact that the bottle-shaped containers (4) are plastic bottles, in particular beverage bottles made of plastic.
6. Hanger as claimed in one of the Claims 1 to 5, characterized by the fact that a fastening part (3) for the detachable fastening of the bottle-shaped containers (4) is located on the lower end of the hook (2).
7. Hanger as claimed in Claim 6, characterized by the fact that two screw caps (11) are inserted into the fastening part (3), into each of which bottle caps a bottle-shaped container (4) is screwed.

8. Hook for a hanger, characterized by two fastening means (3), each of which is provided for the fastening of a bottle-shaped container (4).
9. Hook as claimed in Claim 8, characterized by the fact that each of the fastening means (3) has a thread (12).
10. Hook as claimed in Claim 9, characterized by the fact that it is manufactured in the form of a plastic injection molded part.

1/2

Fig. 1

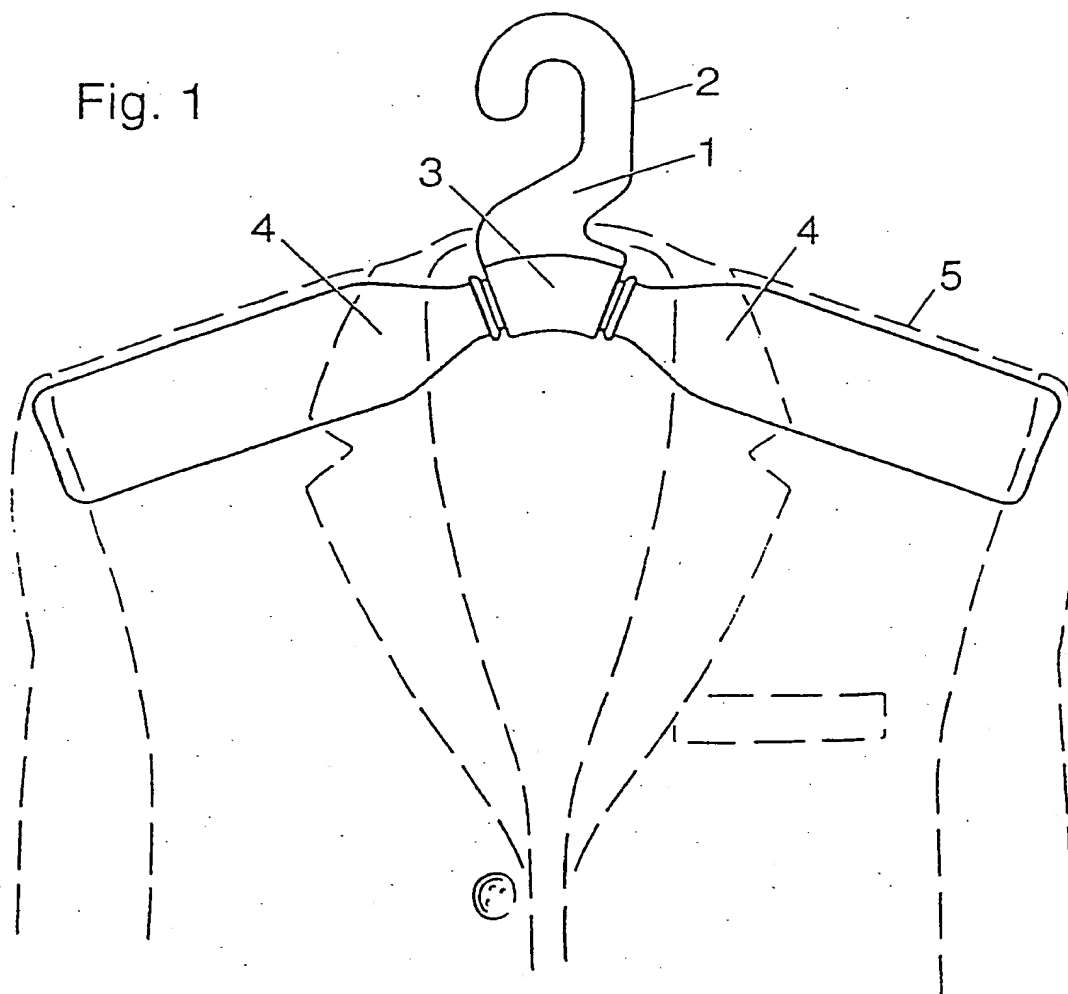
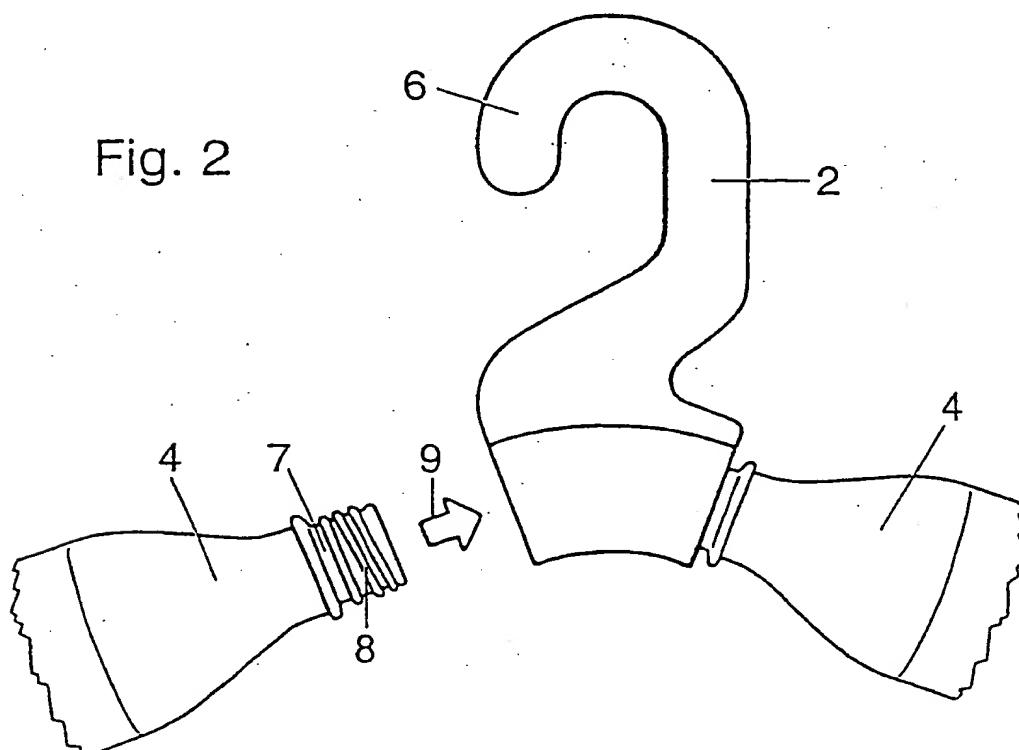
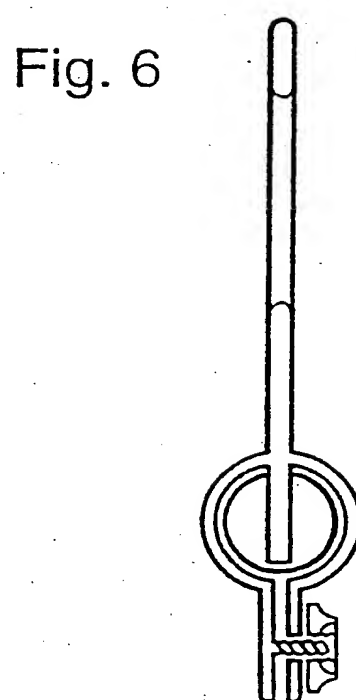
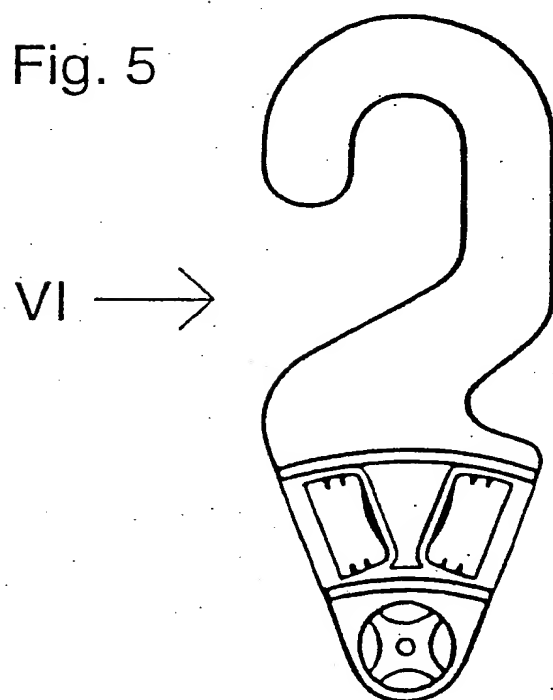
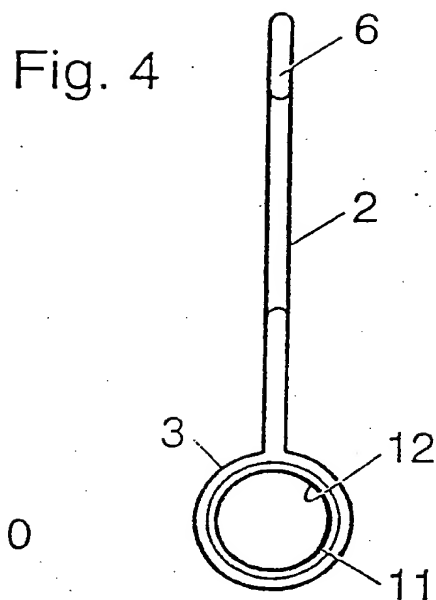
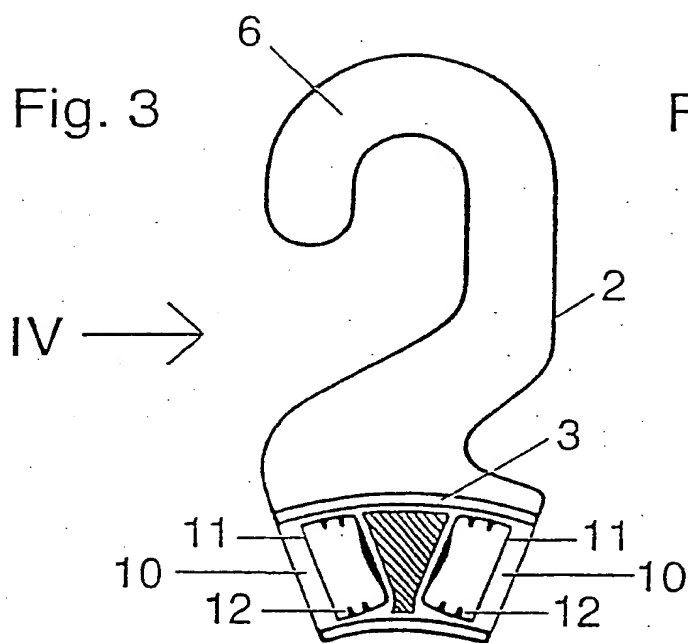


Fig. 2



2/2



INTERNATIONAL SEARCH REPORT

International Application No.

PCT/CH 00/00112

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A47G25/40

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A47G

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, X	FR 2 779 630 A (PELLIGER) 17 December 1999 (1999-12-17) the whole document	1-6, 8-10
X	US 4 593 839 A (VANDOROS) 10 June 1986 (1986-06-10)	8-10
A	figure 1	1
X	FR 2 719 207 A (LONG CHIN INDUSTRIAL CO. LTD.) 3 November 1995 (1995-11-03)	8
A	figures	1

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

A document defining the general state of the art which is not considered to be of particular relevance

E earlier document but published on or after the international filing date

L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

Z document member of the same patent family

Date of the actual completion of the international search

30 May 2000

Date of mailing of the international search report

07/06/2000

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Beugeling, G.L.H.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/CH 00/00112

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
FR 2779630	A	17-12-1999	NONE	
US 4593839	A	10-06-1986	NONE	
FR 2719207	A	03-11-1995	NONE	

Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

10

Applicant's or agent's file reference 129851/MG/CG	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/CH00/00112	International filing date (day/month/year) 29 February 2000 (29.02.00)	Priority date (day/month/year) 11 March 1999 (11.03.99)
International Patent Classification (IPC) or national classification and IPC A47G 25/40		
Applicant SCHWEIZER, Paul		

<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>6</u> sheets, including this cover sheet.</p> <p><input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of <u>7</u> sheets.</p>	
<p>3. This report contains indications relating to the following items:</p> <p>I <input checked="" type="checkbox"/> Basis of the report</p> <p>II <input type="checkbox"/> Priority</p> <p>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p>IV <input type="checkbox"/> Lack of unity of invention</p> <p>V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI <input checked="" type="checkbox"/> Certain documents cited</p> <p>VII <input type="checkbox"/> Certain defects in the international application</p> <p>VIII <input checked="" type="checkbox"/> Certain observations on the international application</p>	

Date of submission of the demand 06 October 2000 (06.10.00)	Date of completion of this report 27 March 2001 (27.03.2001)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/CH00/00112

I. Basis of the report

1. This report has been drawn on the basis of *(Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.)*:

- ☐ the international application as originally filed.
- ☒ the description, pages _____, as originally filed,
 pages _____, filed with the demand,
 pages 1-5, filed with the letter of 14 February 2001 (14.02.2001),
 pages _____, filed with the letter of _____.
- ☒ the claims, Nos. _____, as originally filed,
 Nos. _____, as amended under Article 19,
 Nos. _____, filed with the demand,
 Nos. 1-10, filed with the letter of 14 February 2001 (14.02.2001),
 Nos. _____, filed with the letter of _____.
- ☒ the drawings, sheets/fig 1/2,2/2, as originally filed,
 sheets/fig _____, filed with the demand,
 sheets/fig _____, filed with the letter of _____,
 sheets/fig _____, filed with the letter of _____.

2. The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/fig _____

3. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

4. Additional observations, if necessary:

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/CH00/00112

VI. Certain documents cited

1. Certain published documents (Rule 70.10)

<u>Application No. Patent No.</u>	<u>Publication date (day/month/year)</u>	<u>Filing date (day/month/year)</u>	<u>Priority date (valid claim) (day/month/year)</u>
FR-A-2 779 630	17 December 1999 (17.12.1999)	15 June 1998 (15.06.1998)	NONE

2. Non-written disclosures (Rule 70.9)

<u>Kind of non-written disclosure</u>	<u>Date of non-written disclosure (day/month/year)</u>	<u>Date of written disclosure referring to non-written disclosure (day/month/year)</u>

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/CH 00/00112

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-7, 9, 10	YES
	Claims	8	NO
Inventive step (IS)	Claims	1-7	YES
	Claims	9, 10	NO
Industrial applicability (IA)	Claims	1-10	YES
	Claims		NO

2. Citations and explanations

1. Prior art

Reference is made to the following document:

D1: FR-A-2 719 207

2. Independent Claim 1

- 2.1 The subject matter of independent Claim 1 is novel and appears to involve an inventive step.
- 2.2 Document D1 is considered to be the closest prior art over the subject matter of Claim 1. It specifies a clothes hanger with a hook 10, 20, 30 and two arms extending away from said hook.
- 2.3 The subject matter of Claim 1 therefore differs from the known clothes hanger in the features of the characterising part of said claim.
- 2.4 The problem addressed by the present invention can be seen as that of creating a clothes hanger that acquires the shape of the items of clothing and yet can be produced at a very reasonable cost.

2.5 The clothes hangers from the available prior art do not make any suggestions as to how the clothes hanger from D1 can be further developed in order to solve the stated problem and it is therefore not an obvious step for a person skilled in the art to shape the arms of the clothes hanger as bottle-shaped containers.

3. Independent Claim 8

3.1 The subject matter of Claim 8 cannot be considered novel for the following reasons (PCT Article 33(2)):

3.2 D1 specifies a

hook 10, 20, 30 for a clothes hanger (cf. Fig.1 and page 1, lines 1-5), which has attachment means 10 that are provided on the hook for the attachment of two bottle-shaped containers (cf. page 4, lines 26-31).

As mentioned in Box VIII, the bottle-shaped containers are not components of the claimed hook. The hook is therefore only specified during use with the containers. Moreover, the attachment means, shown in D1 as locking connections 10, are suitable for the attachment of two bottle-shaped containers, as the application clearly shows in the description on page 4, lines 23-28.

4. Dependent Claims 9-10

Dependent Claims 9, 10 appear to contain no additional features which, combined with the

features of any claim to which they refer, meet the PCT requirements for inventive step. The reasons are as follows:

- 4.1 Claim 9: Screw threads are generally considered equivalent to the attachment means known from D1 since they fulfil the same function. Moreover, in this case, no additional technical effect is achieved by using a screw thread as an attachment means.
- 4.2 Claim 10: D1 specifies that the clothes hanger can be made of plastic as an injection-moulded component, see page 1, lines 8-11.

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

1. Claim 8

Claim 8 does not meet the requirements of PCT Article 6 for the following reasons:

The subject matter of independent Claim 8 defines the hook's attachment means by the relationship thereof to the bottle-shaped containers, which are not components of the claimed hook. The hook is only defined during use with the containers (cf. Guidelines C-III, 4.8a).

Furthermore, the invention does not exactly relate to a hook for a clothes hanger but to a central part for a clothes hanger which has a hook and two arm stops disposed in opposite directions with attachment means.

INTERNATIONAL SEARCH REPORT

 Inter. and Application No
 PCT/CH 00/00112

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 A47625/40

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED
 Minimum documentation searched (classification system followed by classification symbols)
 IPC 7 A476

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	FR 2 779 630 A (PELLIGER) 17 December 1999 (1999-12-17) the whole document	1-6,8-10
X	US 4 593 839 A (VANDOROS) 10 June 1986 (1986-06-10)	8-10
A	figure 1	1
X	FR 2 719 207 A (LONG CHIN INDUSTRIAL CO. LTD.) 3 November 1995 (1995-11-03)	8
A	figures	1

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "Z" document member of the same patent family

Date of the actual completion of the international search

30 May 2000

Date of mailing of the international search report

07/06/2000

Name and mailing address of the ISA

 European Patent Office, P.B. 5818 Patentean 2
 NL - 2280 HV Rijswijk
 Tel. (+31-70) 340-2040, Tx. 51 651 and nl,
 Fax (+31-70) 340-3016

Authorized officer

Beugeling, G.L.H.

INTERNATIONAL SEARCH REPORT

Information on patent family members

Inter. Appl. No.

PCT/CH 00/00112

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
FR 2779630 A	17-12-1999	NONE	
US 4593839 A	10-06-1986	NONE	
FR 2719207 A	03-11-1995	NONE	